

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 32

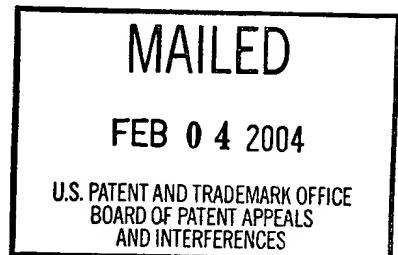
**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Ex parte KEIKO HASEBE, JURI SATA,  
YASUHIRO DOI, YOSHINORI TAMURA,  
MASAKI INOUE, and HIROSHI SONOHARA

Appeal No. 2003-1428  
Application No. 09/468,777

HEARD: January 6, 2004



Before WILLIAM F. SMITH, GRIMES, and GREEN, Administrative Patent Judges.

GREEN, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 11-21. Claims 11, 16 and 19 are representative of the subject matter on appeal, and read as follows:

11. A dispersion comprising:

- (a) 5 to 40 wt.% of an amphipathic lipid having, in the molecule thereof, at least one hydroxy group and at least one amide group;
- (b) 2 to 55 wt.% of a surfactant; and
- (c) an aqueous medium,

wherein said amphipathic lipid has an average particle size of 0.5 to 150  $\mu\text{m}$  as a solid particulate and is dispersed in said surfactant and aqueous medium.

16. A process for preparing a dispersion as claimed [in claim 11], which comprises heating the component (a), the component (b) and water to a temperature not less than the melting point of the component (a), thereby fusing them; and cooling to crystallize the component (a).

19. A washing-away type cosmetic composition which is washed away after application to the skin or hair comprising:

(A) 0.01 to 10 wt.% of an amphipathic lipid having an average particle size of 0.5 to 150  $\mu\text{m}$  as a solid particulate and having in the molecule thereof, at least one hydroxy group and at least one amide group; and

(b) 5 to 95 wt.% of a surfactant.

The examiner relies upon the following references:

Young	4,152,272	May 1, 1979
Vanlerberghe et al. (Vanlerberghe)	5,306,488	Apr. 26, 1994
Pillai et al. (Pillai)	5,476,661	Dec. 19, 1995
Dubief et al. (Dubief)	5,679,357	Oct. 21, 1997

European Patent Application  
Nakamura et al. (Nakamura) 0 487 958 A1 Jun. 3, 1992

Claims 11-21, all of the pending claims, stand rejected under 35 U.S.C.

§ 103(a) over the combination of Nakamura and Vanlerberghe or Young. The claims also stand rejected under 35 U.S.C. § 103(a) over the combination of Dubief as combined with Vanlerberghe or Young, as well as the combination of Pillai and Vanlerberghe or Young. After careful review of the record and consideration of the issues before us, we reverse all of the rejections of record.

### DISCUSSION

The claims stand rejected under 35 U.S.C. § 103(a) over Nakamura, Dubief or Pillai as combined with Vanlerberghe or Young.

According to the rejection, "Nakamura [ ] teach[es] cosmetic compositions comprising 0.05-30% of an amphiphatic [sic] lipid, 0.05-30% of a nonionic surfactant, 1-50% of an ionic surfactant, and 40-99% of an aqueous medium, in which the amphiphatic [sic] lipids are stably microdispersed." Examiner's Answer, page 3.

Dubief is cited for teaching "cationic dispersions based on ceramides and/or glycoceramides," wherein the ceramides and surfactants comprise 0.05-15% of the composition. Examiner's Answer, pages 4-5.

Pillai is cited by the rejection for teaching cosmetic compositions, wherein "[a]mphiphatic lipids . . . are disclosed as comprising 0.0001-50% of the composition and surfactants are disclosed as comprising 0.5-30% of the compositions. . . . Dispersants are disclosed as cosmetic vehicles and water is exemplified as an aqueous vehicle." Examiner's Answer, pages 5-6.

The examiner acknowledges that Nakamura, Dubief and Pillai fail to teach the average particle size of the amphiphatic lipid. See Examiner's Answer, pages 3-6.

With respect to the combination over Nakamura, the rejection concludes:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Vanlerberghe or Young into the invention of Nakamura and obtain a dispersion comprising amphiphatic [sic] lipid, surfactant, and an aqueous medium, wherein the lipid has an average particle size of

0.5 to 150um [sic] because a) Nakamura teaches his dispersion as a microdispersion, wherein the definition of micro is 1.a. Small: microcircuit. b. Abnormally small: microcephaly c. Requiring or involving microscopy: microsurgery. 2. One-millionth ( $10^{-6}$ ): microampere.; b) Nakamura teaches his amphipathic [sic] lipids as ceramides, higher alcohols, glycolipids, and cholesterols, all of which can be characterized as waxes; c) Young and Vanlerberghe teach aqueous dispersions comprising waxes, such as ceramides, wherein the waxes have a particle size of between 0.1 and 200 microns; d) all three references teach compositions comprising wax constituents, surfactant and aqueous medium; e) all three references teach cosmetic embodiments of their compositions.

Examiner's Answer, page 4 (footnote citing The American Heritage® Dictionary of the English Language, Houghton Mifflin Company, Electronic Version (1992) omitted).

With respect to the rejections over Dubief and Pillai, the examiner concludes:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Vanlerberghe or Young into the invention of Dubief [ ] [Pillai] and obtain a dispersion comprising amphipathic [sic] lipid, surfactant, and an aqueous medium, wherein the lipid has an average particle size of 0.5-150um [sic] because a) Dubief [Pillai] teaches compositions comprising ceramides [25-OH-D3 and ceramides], which can be characterized as a wax; b) Young and Vanlerberghe teach aqueous dispersions comprising waxes, such as ceramides, wherein the waxes have a particle size between 0.1 and 200 microns; c) all three references teach compositions comprising wax constituents, surfactant and aqueous medium, and Dubief and Young both teach cationic surfactants; d) all three references teach cosmetic embodiments of their compositions; e) all three references specifically teach hair compositions as cosmetic embodiments.

Examiner's Answer, pages 5-6.

With respect to Nakamura and Dubief, Appellants argue that the compositions taught by those references as present as an emulsion, in which the lipid exists as an anisotropic crystal phase in conjunction with the surfactant. See Appeal Brief, pages 4-8. Thus, in the compositions taught by the Nakamura and Dubief, the lipid and surfactant are melted together to form a new liquid crystal phase: In contrast, appellants assert that in the claimed composition the amphipathic lipid is present as a solid particulate which is dispersed in the surfactant, and if present, the aqueous phase. See id.

With respect to the rejection over Pillai, appellants argue that the “reference fails to disclose or suggest solid particles of amphipathic lipid in any context, the reference can not suggest a dispersion in which the amphipathic lipid is a solid particulate and dispersed in a surfactant and aqueous medium.” Id. at 9.

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant.” In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citations omitted). The test of obviousness is “whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention.” In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

We agree that the combinations based on Nakamura and Dubief do not teach a composition, “wherein said amphipathic lipid has an average particle size of 0.5 to 150  $\mu$ m as a solid particulate,” see claim 11, or a composition

comprising "an amphipathic lipid having an average particle size of 0.5 to 150  $\mu\text{m}$  as a solid particulate," see claim 19.

As pointed out by appellants, Nakamura teaches that the lipid (component A) and surfactant (components B and/or C) are melted together, after which the aqueous phase is added. According to the reference, "[a]n anisotropic liquid crystal phase is formed which, after cooling to room temperature a lipid microdispersion is obtained which is suitable for cosmetic composition application." Nakamura, page 3, lines 18-20. Similarly, Dubief teaches that:

The cationic dispersions . . . can be prepared by forming a paste of the cationic surface-active agent and of the ceramide, followed by melting the mixture at a temperature of approximately 80°C. and then adding hot water (80°-90°C.) with vigorous stirring using an Ultraturrax.

Dubief, col. 3, lines 38-43.

The claim limitation that the lipid is present as a solid particulate requires that the lipid be dispersed in the surfactant, and the aqueous solution, if present, and thus excludes the compositions of Nakamura and Dubief, wherein the lipid and surfactant have been melted together and are present together in the same phase, i.e., an anisotropic crystal phase wherein the lipid is present in conjunction with the surfactant.

We also agree that the combination based on Pillai does not teach a composition, "wherein said amphipathic lipid has an average particle size of 0.5 to 150  $\mu\text{m}$  as a solid particulate," see claim 11, or a composition comprising "an amphipathic lipid having an average particle size of 0.5 to 150  $\mu\text{m}$  as a solid particulate," see claim 19.

Pillai teaches a composition comprising:

- (i) from about 0.000001% to about 10 wt. % of 25-OH-D<sub>3</sub>;
- (ii) from about 0.0001% to about 50 wt. % of a lipid material selected from the group consisting of ceramides, pseudoceramides, neoceramides, and mixtures thereof; and
- (iii) a cosmetically acceptable vehicle for the 25-OH-D<sub>3</sub> and the lipid material.

Col. 4, lines 27-33. Pillai also teaches that surfactants may be present in the composition, see Col. 13, lines 45-67, but there is no teaching that the lipid is present as a solid particulate that is dispersed in the surfactant, as required by the claims. As Vanlerberghe or Young are relied upon to meet the limitation of the average particle size of the lipid of 0.5 to 150  $\mu\text{m}$ , those references do not remedy the deficiencies of Pillai.

## CONCLUSION

Because the rejections under 35 U.S.C. § 103(a) over Nakamura, Dubief or Pillai as combined with Vanlerberghe or Young fail to set forth a prima facie case of obviousness, they are reversed.

REVERSED

William F. Smith, Jr.  
WILLIAM F. SMITH  
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ERIC GRIMES  
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